Think GAIA
For Life and the Earth

SANYO

Ultra-Low Temperature V.I.P.™ Freezer

MDF-U33V

Temperature
(Ambient temp. 30°C)
-86°C

Effective capacity
333L/11.8cu.ft.

Patented V.I.P.™
(Vacuum Insulation Panel)

Ultra slim, space saving Ultra-Low Freezer with Improved energy consumption

- V.I.P.™ technology maximises storage capacity
- Safe operation with Status Alert continuous condition monitoring
- The inner doors are removable for cleaning and defrosting
- Enhanced security
- Improved accessibility
- Quiet operation
- Improved energy consumption
- Can hold up to 216 pcs of 2in boxes or 144 pcs of 3in boxes

VIP series
Vacuum Insulation Panel

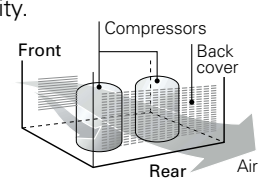
MDF-U33V

MDF-U33V

Features

EVOLUTIONARY DESIGN

- SANYO V.I.P.™ Evolution Series -86˚C ultra-low temperature freezers use patented revolutionary vacuum insulation cabinet construction that reduces the wall thickness from 14cm to 7cm (5.5" to 2.7") and achieves up to 30% more storage capacity than a conventionally insulated freezer without increasing the footprint.
- The newly developed refrigeration system and the freezer structure offer a quiet experimental environment.
- Achieves 12% higher energy conservation than previous model. (115V, 60Hz)
- The newly developed back cover combined with new aerodynamically designed and placed components in the refrigeration compartment provide superior air flow, making it possible to drastically reduce the stress on the freezer and contributing to excellent durability.



- Two independent and insulated inner doors with gaskets prevent cold air leakage.

RELIABILITY

- Status Alert (Condition monitor) Monitors ambient and system conditions continuously and notifies of any abnormalities before a problem happens.

ACCESSIBILITY

- A beak style inner door latch tightly closes the inner door against the freezer frame. It also helps make opening and closing the door smoother.
- The condenser filter is situated at the bottom right side of the front panel to make filter removal and cleaning easier.

SAFETY

- Alarm lamp and buzzer offer secure warning of power failure or abnormal temperature increase.
- High and low temperature warning provides an audible and visual alarm when the temperature deviates more than ±5˚C to ±20˚C (adjustable) from the set point.
- Alarm ring-back function ensures that buzzer will resume operation, should alarm conditions continue after it is silenced.
- Microprocessor-controlled filter-clog check function protects the refrigeration circuit.
- The rugged, one-handed outer door latch has a hole to allow a padlock to securely protect valuable samples.

- Control panel with digital display for easy operation.

Specifications

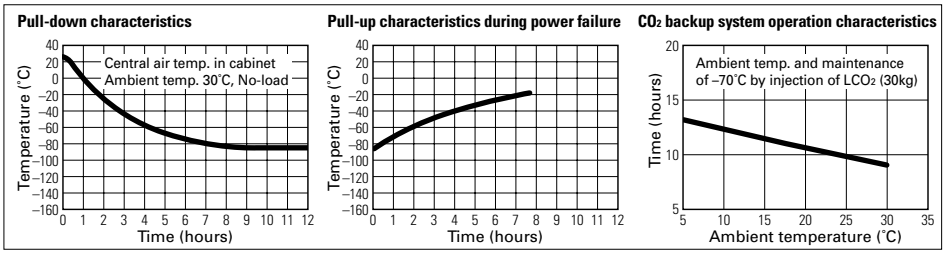
Model	MDF-U33V
Temperature range	–50˚C to –86˚C (1˚C increments)
Maximum cooling performance	–86˚C (Ambient temp. 30˚C)
Exterior dimensions (W x D x H)	670 x 867 x 1860mm (26.4" x 34.1" x 73.2")
Interior dimensions (W x D x H)	490 x 600 x 1140mm (19.3" x 23.6" x 44.9")
Net weight	Approx. 255kg (562 lbs.)
Effective capacity	333 L (11.8 cu.ft.)
Shelves	Stainless steel, 3 shelves
Access port	17mm diameter, 3 locations (back, bottom left/right corner)
Compressor	Hermetic type, Output: 450 W (high stage side), 750 W (low stage side)
Refrigerant	HFC
Alarm	High/low temperature, Power failure, Filter check, Self diagnostics, Door check, Remote alarm contact, Part replacement notification
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 set of keys, 1 scraper

*Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load). In order to use the freezer at a stable temperature for a long time, it is recommended that the temperature be set to at least 5°C higher than the indicated lowest temperature.
In addition, depending on the usage conditions, it may not be possible to reach the indicated lowest temperature.

Caution: SANYO guarantees the product under certain warranty conditions. SANYO in no way shall be responsible for any loss of content or damage to content.

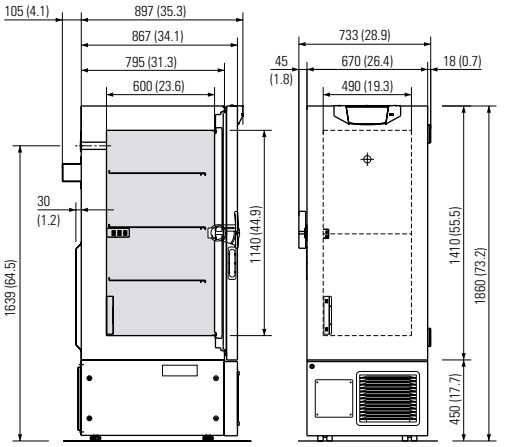
•Appearance and specifications are subject to change without notice.

Performance Data



Dimensions

[Unit : mm (inch)]



Options

Inventory rack
IR-216U

Inventory rack
IR-220U

Rack Capacity

For 2-inch box	
IR-216U	6
IR-220U	6
For 3-inch box	
IR-312UN	12

Circular recorder
MTR-G85

Slip chart recorder
MTR-85H

Recorder mounting bracket
MDF-S3085
(for MTR-85H)

LCO_2 backup system
CVK-UB2
LN_2 backup system
CVK-UBN2

SANYO DAQ
(Data Acquisition) system
MTR-480/MTR-2000

SANYO Electric Co., Ltd., Biomedical Division, Gunma is certified for:
Quality management system: ISO9001 / Medical devices quality management system: ISO13485 / Environmental management system: ISO14001

RoHS (European Restriction of Hazardous Substances directives) compliant

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